

In view of the remarks and amendments set forth herein, Applicants respectfully submit that all pending claims, claims 1-29, and the drawings, are in condition for allowance.

A. Objections to Drawings

In the Office Action the Examiner objected to the drawings submitted as failing to comply with under 37 C.F.R. §1.84(p)(5) as not including reference signs mentioned in the description. Specifically, the Examiner stated that the reference number "82" on page 7, line 21 and the reference number "84" on page 7, line 23, were not included in the description.

Applicants respectfully submit corrections to the drawings in accordance with the Examiner's request. As can be seen by the submitted corrected drawing for Figure 1, reference "80" has been inserted to indicate the battery source indicator. The battery source indicator 80 is disclosed in the specification of the application on page 7, line 13, and was inadvertently not included in the originally submitted Figure 1. Furthermore, Figure 7 as originally submitted mislabeled the at least one lighting rail "84" as being "80". Correction has been made to designate the at least one lighting rail described on page 7, lines 22-23, and included in Figure 7. In addition, Figure 1 has been corrected to show the power-fail switch 82 which is described on page 7, lines 20-23. Applicants submit that these corrections to the drawings properly address the Examiner's requirements and render the drawings in compliance with under 37 C.F.R. §1.84(p)(5).

In addition, the Examiner rejected to the drawings under 37 C.F.R. §1.83(a) stating that the drawings must show every feature of the invention specified in the claims. Specifically, the Examiner rejected to the drawings stating that the Applicants must submit the drawing of the "rheostat having continuous variable control" and "a switch coupled to a variable resistor." The Examiner argued that with claims 2 and 6 the Applicants claims the whole scope of the invention of Hipp, the lighting intensity control system, which discloses how a circuit can be built and what element is needed to accomplish the task of controlling the light intensity. The Examiner concluded that based on this teaching, the drawing of the rheostat having continuous variable control and a switch coupled to a variable resistor must be shown in the drawings. In addition, the Examiner rejected to the drawings stating that a drawing of the second plurality of LEDs distinct from the first plurality of LEDs

must be shown. The Examiner stated that Applicants are required to show the second plurality of LEDs in the undercabinet lighting assembly, questioning where the second plurality of LEDs is located, how the second plurality is provided many lower levels of illumination, how the second plurality of LEDs obtained the characteristic "automatically", and how the second plurality of LEDs detects the failure of electrical power.

Applicants submit that "[a] switch 44, coupled to a variable resistor 46" as required by the Examiner is in fact shown in Figures 1 and 5 in accordance with one embodiment of the present invention. As described on page 6, lines 8-24, a switch 44, as shown in Figure 1, can alternatively be of the rheostat design of Figure 5. Thus, Applicants submit that the "rheostat having continuous variable control" in claim 6 is in fact shown by Figure 5, which is incorporated into Figure 1 as would be understood by one having ordinary skill in the art. Furthermore, Applicants submit that "the variable resistor [being] designed to selectively short-circuit predetermined sections of the resistor" is an electrical feature of the invention, not a mechanical feature which could be shown in a drawing, and also that one of ordinary skill in the art would understand from the specification and the drawings how to design a variable resistor to selectively short-circuit predetermined sections of the resistor.

With respect to the Examiner's requirement to show the "second plurality of LEDs" in claim 13, Applicants respectfully direct the Examiner's attention to Figure 7, which shows five (5) plurality of LEDs, two in a rail configuration and three in a cluster configuration. Thus, Applicants submit that the "a second plurality of LEDs" in claim 13 is shown in the drawings. As such, Applicants respectfully request that the Examiner remove all objections to the drawings on such basis, and allow the drawings as presently submitted.

Applicants respectfully submit that corrections have been made to the objected to drawings as per the Examiner's recommendation. As such, Applicants respectfully request that the Examiner remove all of the objections to the drawings under 37 C.F.R. §1.83(a) and around the drawings as submitted.

Applicants also note that formal drawings will be required in the application subsequent to allowance and will submit formal drawings via drawing amendment at that time.

B. Objection to claim 15

The Examiner also objected to claim 15 stating that the claim as written contains informalities. Specifically, the Examiner stated that there is a lack of antecedent basis for the phrase "said plurality of devices" on line 5. The Examiner required correction of the informality.

Applicants submit that claim 15 has been amended as per the Examiner's recommendation. Specifically, Applicants have amended "said plurality of devices" to be consistent with the "first plurality of LEDs". As such, Applicants request that the Examiner remove the objection to claim 15 and allow the claim as written.

C. Rejection of Claims 11, 12 and 15-29 under §112

The Examiner also rejected claims 11, 12 and 15-29 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner stated that, with respect to claim 11, the Applicants have not clearly described how the optical assembly being selectively adjustable for focusing and dispersing the LED beam. Also, the Examiner stated that, with respect to claim 12, the Applicants have not clearly described how the light source being selectively moveable for focusing and dispersing the LED beam. Furthermore, the Examiner rejected claims 15-28, stating that the Applicants have not clearly described how the first plurality of LEDs uses the battery source upon the failure of AC power, since there are no detective devices or sensors being disclosed to detect the failure of the AC power source and to change a circuit to use the battery source. In addition, the Examiner rejected claim 29, stating that the Applicants have not clearly described what is the "phosphor devices" on lines 3 and 4.

Applicants respectfully submit that the claimed subject matter is definite and does in fact particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, Applicants direct the Examiner's attention to the recent case from the Federal Circuit *S3, Inc. v. Nvidia Corp.*, 259 F.3d 1364, 1371, 59 U.S.P.Q.2d 1745 (Fed. Cir. 2001). In that case the Federal Circuit held that patent documents need not include subject matter that is known in the field of the invention and is in the prior art, for patents written for persons experienced in the field of the invention. In particular, that case related to a patentee disclosing a "selector". The Federal Circuit held that although the

electronic structure of the selector and details of its electronic operation were not described in the specification, persons of skill in the field related to the patent would readily recognize that the selector as shown in the specification was an electronic device whose structure is well known. The "selector" in S3 is analogous to the optical assembly, sensor and phosphor devices, as explained below, that are disclosed in the present application. As such, Applicants respectfully submit that a detailed description of elements that are known in the art is not necessary, and therefore, the claiming of certain elements within the application without a detailed description within the specification does not render the presently claimed subject matter indefinite.

With respect to claims 11 and 12, Applicants have clearly described how both the optical assembly and the light source are selectively adjustable and movable, respectively, for focusing and dispersing the LED beam. At the paragraph beginning at page 5, line 22, the subject matter of claims 11 and 12 is described. Specifically, the specification describes that the optical assembly 40 can be moved or rotated so that the focus of the lens and the dispersion of the LED beam can be adjusted as desired. Applicants submit that the specification in light of the drawings would allow one of ordinary skill in the art to understand that the individual LED arrays could be rotated or moved in order to adjust the LED beam as desired. As such, Applicants submit that the subject matter of claims 11 and 12 is sufficiently described to allow one of ordinary skill in the art to understand the metes and bounds of each of the rejected claims.

In addition, the Examiner rejected claims 15-28 under 35 U.S.C. §112, second paragraph, stating that the Applicants have not clearly described how the first plurality of LEDs uses the battery source upon the failure of AC power since there are no detecting devices or sensors being disclosed to detect the failure of the AC power source and to change a circuit to use the battery source. Applicants submit that in the paragraph beginning on page 7, line 17, the Applicants disclose that "[a] sensor (not shown) detects when AC power is no longer available and sends a signal to the battery system to supply power to the light source." Thus, Applicants submit that the detection of failure of an AC power source is, in fact, disclosed within the application and that one of ordinary skill in the art would understand how to implement such a sensor within the device. Therefore, Applicants submit that the

subject matter of claim 15, and dependent claims 16-28, is described in the specification.

The Examiner also rejected claim 29 under 35 U.S.C. §112, second paragraph, stating that the Applicants have not clearly described what is the "phosphor devices" on lines 3 and 4. Applicants respectfully direct the Examiner's attention to the paragraph beginning on page 2, line 1, of the specification where it is stated that LEDs can include luminescent phosphor material on the top of the LED in order to transform UV or blue light into longer wavelengths in order to generate white light. One of ordinary skill in the art would understand what type of phosphor device could be implemented in the present invention in addition to LEDs. As such, Applicants submit that the phosphor devices as claimed in claim 29 is particularly pointed out and described in the specification to allow one of ordinary skill in the art to understand what a phosphor device is with respect to the claimed undercabinet light assembly. Therefore, Applicants respectfully request that the Examiner remove all rejections to claim 29 under 35 U.S.C. §112, second paragraph, and allow the claim as written.

D. Rejection of Claims 1, 8-10, 13-15, 22-24 and 27-29 under §103(a)

In the Office Action of March 25, 2002, the Examiner also rejected claims 1, 8-10, 13-15, 22-24 and 27-29 35 U.S.C. §103(a), as being unpatentable over Blackman in view of Hed. The Examiner argued that Blackman discloses everything except for the plurality of LEDs, and that Hed shows the use of a plurality of LEDs in a left column of Figure 1, thus arguing that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the LEDs of Hed in the fluorescent light fixture, the night light and the flashlight of Blackman in order to provide a longer lifetime of a light source.

With respect to claims 8 and 22, the Examiner stated that Hed discloses a plurality of LEDs having red, blue and green colors. Regarding claims 9 and 23, the Examiner stated that Blackman discloses a battery. Further, regarding claims 10 and 24, the Examiner argued that Blackman discloses a battery and a power interruption detector circuit to turn automatically a flashlight light assembly on while a fluorescent light fixture is off when a power failure occurs.

With respect to claims 13 and 27, the Examiner argued that Blackman discloses a flashlight light assembly as a second separately and distinct light source

and that Blackman discloses everything except for the plurality of LEDs. The Examiner argued that Hed shows the use of the plurality of LEDs in a middle column of the Figure 1 and that it would have been obvious to use the LEDs in the middle column of the Figure 1 of Hed in the flashlight light assembly of Blackman in order to provide a longer lifetime of a light source. Further, the Examiner argued that with respect to claims 14 and 28, Hed shows the use of flexible materials.

With respect to claims 1, 8-10 and 13-14, Applicants submit that the claimed subject matter is not obvious over Blackman in view of Hed. Applicants submit that the combination of Blackman, which discloses the use of a fluorescent light fixture with a flashlight, in combination with Hed, which teaches a plurality of LEDs as a light source, would not render obvious the presently claimed subject matter. Specifically, claim 1 calls for an undercabinet lighting assembly that comprises a housing, a first plurality of LEDs, an optical assembly and a fixing apparatus. In contrast, Blackman is directed to a fluorescent light fixture mounted within a lighting fixture and also includes a night light and a battery operated detachable flashlight. Further, Hed is directed to a luminaire that comprises a housing that holds a plurality of LEDs and a light-transmissive diffuser.

Applicants submit that the combination of Blackman and Hed would not render the presently claimed subject matter obvious. Rather, the combination of the teachings of Blackman and the teachings of Hed would not be compatible to one of ordinary skill in the art. The Examiner argues that Hed is cited in combination with Blackman to prove that the use of an array of LEDs as a light source is unpatentable since it is not novel. The Examiner further states that there is no significance to the light diffuser of Hed when comparing to the optical assembly of the presently claimed subject matter. Applicants submit that the light diffuser of Hed is important to the patentability of Hed and also in the combination of Hed and Blackman. The presently claimed subject matter specifically calls for a particular combination of an optical assembly with at least one LED array in an undercabinet lighting assembly. Specifically, Hed only teaches that the light from the LED array can be used through a diffuser. At column 4, in the paragraph beginning at line 64, Hed discusses a red light source, a green light source and a blue light source that are mounted within the box. The light emitted from this LED array is then intermixed, thus allowing the teachings of Hed the emission of a light by mixing the red, green and blue output lights to form a desired emission. Therefore, while the Examiner argues that the light

diffuser is not an important aspect of the teachings of Hed, Applicants submit that the invention of Hed would not be enabled without the light diffuser. Thus, while the Examiner argues that the reference to Hed is to show the use of LEDs, Applicants submit that Hed shows a particular combination of colored LEDs that emit through a light diffuser to show a particular color.

Furthermore, Blackman only discloses a primary light source as being a fluorescent light, not an LED. Blackman discloses that an LED can be used in the detachable flashlight assembly, however, it is not suggested by Blackman that alternate means for the primary light source can be used for the particular light fixture of Blackman. Certainly one of ordinary skill in the art would not be able to look at the teachings of Hed in combination with the disclosure of Blackman in order to invent the undercabinet lighting assembly disclosed by the presently claimed subject matter. Moreover, the undercabinet light source in Blackman is fluorescent, not LED.

With respect to claim 1, Applicants respectfully direct the Examiner's attention to the claimed subject matter regarding the focusing characteristics of the optical assembly. The Examiner argues that Blackman discloses an optical assembly as disclosed in the presently claimed subject matter. Applicants respectfully disagree. The optical assembly disclosed in Blackman is disclosed as being "a translucent acrylic diffuser" (emphasis added, see col. 5, line 14). Thus, Blackman does not disclose that the emitted light can be focused nor does the combination of Blackman and Hed teach or suggest that an LED beam is emitted through an optical assembly and can be focused.

The Examiner stated, with respect to claim 15, that the combination of Blackman and Hed renders the subject matter obvious. Claim 15 specifically calls for a battery to serve as a power source back up of the AC power source for the primary light source of the undercabinet assembly. Blackman, however, only discloses battery power for the flashlight, not the primary light source. In fact, using a battery would be incompatible with Blackman, since Blackman uses a fluorescent light source, which cannot be practically powered by a battery. Therefore, Applicants submit that the battery as claimed in claim 15 is a unique feature of the claim, and further that the combination of Blackman and Hed does not teach nor suggest the specific combination of elements as claimed in claim 15.

Therefore, Applicants request that the Examiner remove all rejections to claims 1, 8-10, 13-15, 22-24 and 27-29 under 35 U.S.C. §103(a) and allow the claims as written.

E. Rejection of Claims 2-7 and 16-21 Under §103(a)

The Examiner also rejected claims 2-7 and 16-21 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and Hipp. The Examiner stated that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the rheostat of Hipp in the circuitry system of Blackman in order to provide a control of electric current. Further, the Examiner stated, that with respect to Hed, it would have been obvious to use the controller of Hed in the switch of Blackman in order to provide a variable electrical current. In addition, the Examiner stated that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the controller of Hed in the switch of Blackman in order to provide a variable chromaticity luminary. The Examiner argued that the Applicants' previous argument in the amendment of December 13, 2001, did not comply with 37 C.F.R. §1.111(c) as not clearly pointing out the patentable novelty in view of the state of the art disclosed by the references cited or the objections made. Further, the Examiner argued that Applicants' previous arguments do now show how the amendments avoid such references or objections.

Applicants respectfully submit that the Hed and Hipp references in view of the Blackman reference do not render the present invention obvious. As stated in the previous amendment, Amendment A of December 13, 2001, Hipp discloses a lighting intensity control system that is directed to a lighting assembly comprising both incandescent and LED light sources. The resistor disclosed in Hipp is specifically designed for normalizing the light intensity versus the voltage, which differs from the present inventive LED undercabinet lighting assembly. Applicants submit that one of ordinary skill in the art would not be motivated to combine the rheostat of Hipp with the circuitry of Blackman to achieve the presently claimed undercabinet lighting assembly. The presently claimed subject matter's novelty lies in the adaptation of an LED array light source in combination with an optical assembly that can be used to focus and disperse the LED beam. The Blackman reference, in further view of Hed and Hipp, do not suggest or disclose the presently claimed subject matter. Specifically, Applicants submit that none of the references

individually, or in combination, suggest or disclose an undercabinet lighting assembly with a non-light intermixing optical assembly for focusing an LED beam formed from at least one LED array within the undercabinet lighting assembly.

Furthermore, with respect to claims 2-7, there is certainly no disclosure nor suggestion from the references cited by the Examiner to include a rheostat for controlling the level of optical output. The Examiner argues that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the controller of Hed in the switch of Blackman in order to provide a variable chromaticity luminary. Applicants submit that this differs from the rheostat that controls the level of optical output of the present invention. While the Applicants concede that the references cited disclose varying chromaticity, Applicants also submit that controlling the level of optical output, as disclosed in the presently claimed subject matter, differs from varying the chromaticity luminary. As defined by *Merriman Webster's Collegiate Dictionary*, found online at www.m-w.com, "chromaticity" is defined as "the quality of color characterized by its dominant or complementary wavelength and purity taken together." This is accounted for in Hed by the light diffuser which intermixes the red, blue and green colors in order to provide a desired color output. This characteristic, however, is not what is claimed by the present invention. The present invention claims a rheostat which controls the level of optical output which will control the amount of light given off by the LED array from dim to bright. This is not what is called for by the references cited by the Examiner, and as such, Applicants submit that this feature of the presently claimed subject matter is unique and novel. Thus, Applicants submit that amended claim 1 distinguishes from the references cited by the Examiner and shows that the level of optical output is not equivalent to a variable chromaticity luminary. Therefore, Applicants request that the Examiner remove all objections to the pending claims and allow the claims as written.

F. Rejections of Claims 11-12 and 25-26

The Examiner rejected claims 11-12 and 25-26 stating that Applicants have not clearly pointed out the patentable novelty and have not been corrected as the Examiner stated in the previous Office Action. Applicants submit that claims 11 and 25 are novel and are not rendered obvious over Blackman in view of Hed and Splane. Applicants submit that the previously made amendment to the claims places

the claims in condition for allowance by specifying that the optical assembly is continuous and encapsulating of the LED array used as the primary light source. Applicants submit that this feature is not rendered obvious in view of the prior art cited by the Examiner because the adjusting assembly as disclosed in Splane is not equivalent to the continuous and encapsulating optical assembly as claimed by the presently claimed subject matter. Therefore, Applicants respectfully submit that it would not have been obvious to a person of ordinary skill in the art to use the adjusting assembly of reflectors of Splane in the fluorescent light fixture in the night light of Blackman or provide an advantageous adjustment for focusing, since Splane does not teach or suggest the use of a continuous and encapsulating assembly for focusing and dispersing the LED beam.

Furthermore, the Examiner maintained rejection of claims 12 and 26 under 35 U.S.C. §103(a) as being unpatentable over Blackman in view of Hed and Gordin. The Examiner stated again that the amendment to claims 12 and 26 has not clearly pointed out the patentable novelty and has not been corrected as the Examiner stated in the previous Office Action. Applicants submit that amended claims 12 and 26 have been placed in condition for allowance and that it would not be obvious to a person of ordinary skill in the art to use the moveable light source assembly of Gordin in the fluorescent light fixture and the night light of Blackman in order to provide an advantageous adjustment of focusing.

Applicants submit that the amended claims are not rendered obvious over Blackman in view of Hed and Gordin. As can be seen by Figure 7 of Gordin, the reflector system that is used in order to adjust the light source beam does not encapsulate the light source. In contrast, the presently claimed subject matter specifically calls for an optical assembly that encapsulates the LED array which is used as a primary light source of the inventive undercabinet lighting assembly. As such, Applicants respectfully submit that claims 12 and 26 have been placed in condition for allowance and are not obvious over Blackman in view of Hed and Gordin.

G. Conclusion


Applicants respectfully submit that the rejected claims as set forth by the Examiner the Office Action of March 25, 2002 have been placed in condition for allowance. Withdrawal of the rejections and early notification of allowability are

earnestly solicited. Should any issues remain, the Examiner is encouraged to contact the undersigned to resolve any such issues.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & MCKEE, LLP

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Scott A. McCollister, Reg. No. 33,961
Anuj K. Wadhwa, Reg. No. 50,407
1100 Superior Avenue, Seventh Floor
Cleveland, Ohio 44114-2518
(216) 861-5582

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

15. (Twice Amended) An undercabinet lighting assembly comprising:

a housing; and

a first plurality of Light Emitting Diodes (LEDs) mounted within the fixture housing forming at least one array of LEDs, the array of LEDs generating an LED beam and serving as a light source, said first plurality of LEDs [devices] being powered by an AC power source and a battery source upon failure of the AC power source.